

### ABSTRACT

A frame handler for application-level memory management includes an associated block of memory divided into instances such that data elements may be stored in the instances, a data structure identifying the unused instances within the block of memory, and an application interface operable to receive a request for an unused instance from a software application. The frame handler is operable to identify an unused instance in response to a request received by the application interface. In addition, a software application using application-level memory management includes an application-level memory manager operable to allocate a block of memory to store data elements with the block of memory divided into frames and each frame divided into instances, and application code operable to store data elements in instances of a block of memory allocated by the application-level memory manager.